

D1
signal indicative of head vibration.

~~3. (Twice Amended) The disc drive of claim 1 wherein the detector includes a frequency filter.~~

D
5. (Twice Amended) The disc drive of claim 1 wherein the actuable transducer is a piezoelectric material.

D
6. (Twice Amended) The disc drive of claim 1 wherein the actuable transducer is an electrostatic transducer.

D
8. (Thrice Amended) The disc drive of claim 1 and further comprising:

D
a controller coupled to the actuable transducer on the movable head suspension assembly and configured to transmit a signal to the actuable transducer to move the head.

D5
9. (Thrice Amended) The disc drive of claim 1 wherein the disc drive includes a plurality of discs rotationally coupled to the chassis and a plurality of movable head suspension assemblies having heads coupled thereto to read or write to surfaces of the plurality of discs and including an actuable transducer coupled to each of the plurality of movable head suspension assemblies.

10. (Thrice Amended) The disc drive of claim 1 wherein the actuable transducer is configured to operate between a detection mode and an actuation mode, in the detection mode, the actuable transducer detecting the head vibration and in the actuation mode the actuable transducer receiving a signal to energize the actuable transducer to move the head.

11. (Thrice Amended) The disc drive of claim 10 including:
a microactuator controller coupled to the actuatable
transducer and configured to operate the
actuatable transducer in the actuation mode.

12. (Thrice Amended) A method for operating a disc drive
comprising steps of:
(a) providing a transducer supported on a movable head
suspension assembly having a head coupled thereto
configured to generate a transducer signal
indicative of head vibration; and
(b) detecting a signal amplitude of the transducer
signal above a threshold amplitude and outputting
a level detected signal indicative of the head
vibration.

13. (Twice Amended) The method of claim 12 wherein the transducer
is a piezoelectric transducer.

14. (Thrice Amended) The method of claim 12 and further comprising
the step of:
(c) transmitting a signal to the transducer on the
movable suspension assembly to move the head.

15. (Twice Amended) The method of claim 12 and further comprising
the step of:
(c) transmitting a command to rewrite a write command
in drive memory in response to the level detected
signal indicative of the head vibration.

16. (Twice Amended) The method of claim 12 and comprising the
step of
(c) filtering the transducer signal to detect vibration

sub
sub
sub
sub
sub
Da

frequencies of the head.

17. (Twice Amended) The method of claim 12 wherein the disc drive includes a plurality of head suspension assemblies and further comprising:

(c) individually detecting the head vibration for each of the plurality of head suspension assemblies.

18. (Twice Amended) The method of claim 12 including a microactuator controller coupled to the transducer and configured to transmit a signal to the transducer to move the head and comprising the step of:

(c) selectively operating the disc drive in a detection mode and an actuation mode, in the detection mode the transducer detecting the head vibration and in the actuation mode, the transducer moving the head.

20. (Amended) The method of claim 12 and comprising the step of:

(c) filtering the transducer signal to detect one of bending or torsion mode vibration frequencies.

DWD
Da
Da
Da
Da
Da

Please add new claims 22-26 as follows:

22. (New) The assembly of claim 19 wherein the detector includes a filter configured to pass a signal responsive to vibration frequencies associated with the head suspension assembly.

23. (New) An assembly comprising:
a movable suspension assembly;
an actuator coupled to the movable suspension assembly;
and

a detector coupled to the actuator and configured to receive a signal proportional to vibration of the movable suspension assembly.

24. (New) The assembly of claim 23 wherein the actuator is one of a piezoelectric or electrostatic actuator.

25. (New) The assembly of claim 23 and further comprising:
a controller coupled to the actuator and configured to transmit a signal to the actuator to move the movable suspension assembly.

26. (New) The assembly of claim 23 including a controller configured to operate the actuator between an actuation mode to position a head of the movable suspension assembly and a detection mode to detect vibration of the head of the movable suspension assembly.